Recd 25 AUG 88

335268

Foley

FILE PLAN

3.15

PRIVILEGED
DELIBERATIVE PROCESS

Richardson Flat Tailings
Work Plan
for the
Remedial Investigation/Feasibility Study

FOIA EXEMPT
5

Utah Department of Health
Bureau of Solid and Hazardous Waste
August 25, 1988

NEEDS FOLLOW UP
Promised UT that we would award CA on 16 Sept including 5 day comment review.

WORK PLAN
TABLE OF CONTENTS

must carry to ROD

I. INTRODUCTION

A. Structure of Program

The remedial activities described in this work plan will be undertaken by the Utah Department of Health (the Department) through one contract with a consultant. The contract will contain one scope of work for the Remedial Investigation/Feasibility Study (RI/FS) activities. No major deviation from this work plan is expected. However, during the course of the project some changes may be required as each activity is completed and more is learned about the condition of the site. Such changes in the work plan will be approved by the Department and EPA. Only changes which are considered to be significant by the Department and EPA project officers will require amendments to the Cooperative Agreement.

Pursuant to the Superfund Memorandum of Agreement between the State and EPA, final contract documents or plans and contract changes shall be submitted to the EPA project officer for review, as provided in 40 CFR 33.110(b)(2), before contract award or amendment. Pursuant to the Superfund Memorandum of Agreement between the State and EPA, the State agrees to submit all final plans, reports and/or recommendations to the EPA project officer for review and concurrence prior to issuance or implementation.

B. Authorization to Execute Cooperative Agreements

The Utah Department of Health has authority to enter into this cooperative agreement pursuant to 26-14b-20, U.C.A.

C. Administrative and Managerial Commitments

The Department is the designated state agency responsible for conducting the RI/FS activities for the Richardson Flat site in Summit County, Utah. The Department is responsible for the execution, administration and management of this Cooperative Agreement and for the performance of the activities as described in the scope of work of this Agreement. The Department will contract, in compliance with applicable federal and state procurement regulations, for the performance of the activities as necessary to accomplish the objectives of the scope of work. The Department will comply with and/or will require contractors and subcontractors to comply with any applicable general grant regulations (40 CFR 30).

In the RI/FS activities addressed under this Cooperative Agreement, the Department will:

1. Conduct the activities of this Cooperative Agreement in a manner consistent with the National Contingency Plan (NCP);

2. Adequately document the costs incurred in undertaking the activities described in this Agreement and otherwise support

any EPA cost recovery efforts. Except in conjunction with the other party, neither party to this agreement will initiate a cost recovery action against or enter compromise negotiations with a responsible entity. If either party refuses to join in such action or compromise negotiations, however, the other party may proceed unilaterally 30 days after giving written notice of its intention to do so to the refusing party;

3. Not conduct field work at the site until a safety plan consistent with Section 104(f) of CERCLA, EPA Order 1440.2 and the EPA Occupational Health and Safety Manual for the site has been approved by the EPA project officer;

4. Secure any necessary state and federal permits, not limited to those pertaining to treatment, storage or disposal of wastes from the site, provided such permits are available; and

5. Arrange for access to the site, including reasonable access for EPA employees and contractors, necessary to satisfactorily complete the planned response actions.

II. PERSONNEL SCHEDULES

The time schedules presented in this application begin following the award of funds to the Department. Once the funds are awarded, the Department will initiate certain chargeable management activities and work tasks necessary to comply with the Cooperative Agreement.

The Department will provide the following personnel for the management and work tasks needed to successfully complete this project.

Solid and Hazardous Waste Director --	Supervisor responsible for overall program administration.
Superfund Branch Manager & Section Managers --	Supervisors who supply technical & administrative guidance on direction of project as well as on specific problems involving project.
Toxicologist --	Reviews site data to determine potential risk to public health and the environment, and reviews remedial design to ensure protection of public health and the environment.
Project Coordinator --	Environmental Health Scientist charged with maintaining technical integrity of project. Prepares technical contract specification,

	reviews technical proposals and will be project on-scene coordinator.
Environmental Health Scientists --	Personnel with expertise in various technical areas including geology, hydrology and chemistry who will assist the Project Manager as necessary.
Accountant --	Fiscal specialist charged with reviewing contractor records, insuring timeliness and fiscal accuracy of reports, purchasing of state equipment, and maintaining financial documentation files.
Program Specialist --	Public Information Officer responsible for developing and/or implementing community relations plans. Keeps informed as to the progress of project (technical and fiscal). Prepares briefings and status reports for officials, coordinates press releases with EPA and answers questions from interested parties.
Staff Attorney --	Responsible for determining site ownership and other legal issues, including ensuring that all applicable state and federal procurement regulations, as well as the federal grant regulations are followed by the contractor and the state.
Clerical --	Secretary responsible for clerical support for reports, work tasks and documentation.

Other staff members may be assigned as necessary to provide backup support to the Project Coordinator. Each individual will be charging time allocable to this project to the grant.

III. CONTRACTOR PROCUREMENT

The goal of this phase is to procure a contractor to perform the RI/FS and write the ROD. For the contractor procurement effort, the Department will perform the following activities:

- Determine what procurement methods are appropriate and implement;

- Prepare a RFP and notice to bidders;

- Establish evaluation criteria and methods for evaluating proposals;

- Establish evaluation committee;

- Bid opening, bid evaluation and contractor selection; and

- Contract negotiation and award.

IV. RI/FS SCOPE OF WORK

This scope of work (SOW) describes, in broad terms, the activities that are needed to perform the RI/FS for the Richardson Flat Tailings site in Park City, Utah.

A. Site Description and Project Background

The Richardson Flat tailings site is located in Summit County, Utah approximately 3.5 miles northeast of Park City. The tailings cover approximately 160 acres in the NW 1/4, Section 1, Township 2 South, Range 1 East and were piped from the Keetley Ontario Mine Shaft south of Park City. The site, which has been inactive since 1981, is currently owned by United Park City Mines Company. An estimated 4,500 people live year-round within 4 miles of the tailings.

It is estimated that at least 7 million tons of tailings were deposited at the site. The tailings, which are contaminated with a number of heavy metals including arsenic, cadmium, lead and zinc are next to Silver Creek.

Several health concerns are associated with the site. Heavy metals from the tailings have migrated into the soil below the tailings, groundwater, surface water and air. The public and livestock have free access to the site and water diverted from Silver Creek is used to irrigate pasture and hay fields within 3 stream miles of the site.

The site was proposed for listing on the National Priorities List (NPL) in June, 1988.

B. The RI/FS Process

Under current regulations and guidance, the remedy selection process has two primary components: the RI and the FS. These two components are conducted in a phased, interactive approach. The RI/FS will be conducted in accordance with the provisions of the Comprehensive Environmental Response

Compensation and Liability Act of 1980 (CERCLA); Superfund Amendments and Reauthorization Act of 1986 (SARA); EPA's subsequent Interim Guidance on Superfund Selection of Remedy, OSWER Directive 9355.0-19; 40 CFR Part 300, the National Contingency Planned and subsequent revisions; and Guidance for the Preparation of Remedial Investigations and Guidance for the Preparation of Feasibility Studies, June, 1985 and subsequent revisions.

The RI/FS is performed in the following six phases:

- scoping of the RI/FS
- site characterization
- development of alternatives
- screening of alternatives
- treatability investigations
- detailed analysis of alternatives

An Administrative Record will be established to document the decision for the response action. The administrative record will:

- be a contemporaneous explanation of the basis for the selection of the response action
- be compiled as information is generated for the site; and
- include documents that form the basis for the decision.

Scoping

The goal of this phase is to focus the data collection efforts so that only the data needed to complete the RI/FS is collected. The state, in conjunction with the EPA and the contractor will develop a site management strategy on the basis of available information to:

- identify the types of actions that may be required to address site problems;
- identify whether interim actions may be taken to mitigate potential threats or prevent further environmental degradation;
- identify the optimal sequence of site actions and site activities; and

- identify procedures that may be used to streamline the RI/FS.

The next step is to scope the specific projects and develop project plans. Project planning will accomplish the following goals:

- determine the types of decisions to be made;

- identify the data needed to support those decisions;

- describe the methods by which the required data will be obtained;

- describe the methods by which the data will be analyzed; and

- prepare work plans to document methods and procedures, including the Health and Safety Plan, Community Relations Plan, and the Data Quality Objectives.

Applicable or Relevant and Appropriate Requirements (ARAR's) and To Be Considered Requirements (TBC's) will be preliminarily identified during this phase. ARAR's may be classified as either contaminant, action, or location specific.

Site Characterization

During site characterization, the sampling and analysis plan (SAP) developed during project planning is implemented and field data are collected and analyzed to determine to what extent a site poses a threat to human health or the environment. The major components of site characterization include:

- conducting field investigations as appropriate;

- analyzing field samples in the laboratory;

- evaluating results of data analysis to characterize the site and develop a baseline risk assessment; and

- determining if data are sufficient for developing and evaluating potential remedial alternatives.

We anticipate quarterly groundwater sampling over a one year period.

The major goals of site characterization are:

- source characterization

- routes of migration characterization

- identification of the nature and extent of contamination; and

- receptor/risk identification.

The data obtained during site characterization will be provided to ATSDR for its use in conducting a health assessment.

Development of Alternatives

The primary objectives of this phase of the FS is to develop alternatives that protect human health and the environment and encompass a range of appropriate waste management options. Appropriate waste management options may involve, depending on site-specific circumstances, eliminating the hazardous substances at the site, reducing hazardous substances to acceptable levels, and preventing exposure to hazardous substances or some combination of elimination, reduction, and exposure prevention. Alternatives are typically developed concurrently with the RI site characterization, with the results of one influencing the other in an iterative fashion.

The following activities will take place:

- identifying volumes or areas of media to which treatment and containment actions may be applied; and

- screening of remedial action alternatives to identify those that would be effective for contaminants and media of interest at the site.

Screening of Alternatives

The objective of alternative screening is to narrow the list of potential alternatives (based on their effectiveness, implementability, and cost) that will be evaluated in detail. This screening aids in streamlining the feasibility study process while ensuring that the most promising alternatives are being considered.

Three distinct steps are typically conducted during the screening of alternatives:

- the alternatives are further refined as appropriate;

- the alternatives are evaluated on a general basis to determine their effectiveness, implementability, and cost; and

- a decision is made, based on this evaluation, as to which alternatives should be retained for further analysis.

Treatability Investigations

The primary objectives of treatability studies are:

- provide sufficient data to allow treatment alternatives to be fully developed and evaluated during the detailed analysis and support remedial designing of a selected alternative; and

- reduce cost and performance uncertanties for treatment alternatives to acceptable levels so that a remedy can be selected.

The decision to conduct treatability testing may be made during project scoping if information indicates such testing is desirable. However, the decision to conduct these activities will be made by weighing the cost and time required to complete the investigation against the potential value of the information in resolving uncertainties associated with selection of a remedial action.

Detailed Analysis of Alternatives

The detailed analysis of alternatives is the analyses and presentation of the relevant information needed to allow decisionmakers to select a site remedy. Any selected alternative must meet the following requirements:

- be protective of human health and the environment;

- attain ARARs (or provide grounds for invoking a waiver);

- be cost-effective;

- use permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and

- satisfy the preference for treatment that reduces toxicity, mobility, or volume as a principal element (or provide an explanation why it does not).

The nine evaluation criteria to be considered are:

- short-term effectiveness

- long-term effectiveness and permanence

- reduction of toxicity, mobility, or volume

- implementability
- cost
- compliance with ARARs
- overall protection of human health and the environment
- state acceptance
- community acceptance

CERCLA places an emphasis on evaluating long-term effectiveness and related considerations for each of the alternative remedial action.

C. Allowable Costs and Tasks

Allowable costs for conduct of the RI/FS include the following:

1. Personnel and necessary support staff costs for hiring and overseeing contractor conduct of the RI/FS.
2. Personnel and necessary support staff costs for conduct of the RI/FS.
3. Travel costs for state personnel to visit the site and attend meetings concerning the project.
4. Incidental costs, such as telephone usage, building rental, postage, and copying associated with the above activities.
5. Indirect costs in accordance with the State's approved indirect cost rate.

The following tasks will be performed by the State with the assistance funds:

1. Conduct the RI/FS.
2. Develop a Scope of Work for the RI/FS.
3. Issue Request for Proposals, select a consultant, and negotiate a contract for conduct of the RI/FS.
4. Review and comment on draft versions of the RI/FS and associated documents. Draft and final versions will be sent to EPA for review.
5. Review and comment on public comments received on the Feasibility Study.

6. Travel as necessary to complete the above activities.

The State will provide the necessary documents to the EPA for review and comment or approval. The above task list is not intended to be all-inclusive; other tasks related to conduct of the RI/FS may be necessary.

The relationship between the State of Utah and the EPA regarding such matters as confidentiality of information, coordination of press releases, time periods for review of documents, and other related matters is described in the Superfund Memorandum of Agreement, signed by the State and EPA on November 20, 1987.

D. Work Schedule

Milestone (weeks)	Scheduled Event	Concurrent OPs
Y	EPA awards cooperative agreement.	Y+1
Y+3	Department accepts cooperative agreement.	
~~Y+7~~	Department proposes procurement method to EPA and submits appropriate draft procurement documents to EPA for review and approval.	Y+3
~~Y+9~~	EPA approves method and draft documents or provides comments. Procurement process begins.	Y+9
~~Y+25~~ 9	Contractor selected.	
~~Y+27~~ 11	Proposed contract to EPA for approval.	Y+9
~~Y+29~~ 13	Contractor services contract signed for the RI/FS.	Y+11
~~Y+33~~ 15	Contractor submits work plan.	Y+13
~~Y+85~~ 54	Contractor submits draft RI/FS.	Y+49 FS draft submit
~~Y+89~~ 57	Department and EPA comments on draft RI/FS.	
~~Y+93~~ 59	Contractor submits ~~draft~~ final draft RI/FS.	
~~Y+97~~ 61	Department and EPA comment on ~~draft~~ final draft RI/Fs. and accepts Final FS	

Y+~~10~~63 Contractor submits final draft of RI/FS for review and public comment. Y+61 Draft ROD

Y+~~105~~67 Contractor submits final RI/FS with final-draft ROD

69 Final ROD

V. Cost Estimate 66 RD start

A. RI/FS 79 RD completion
80 RA start
RA completion

Personnel: 132

Title	$/Hr	Hours	Cost	Total
Bureau Director	$25	90	$2,250	
E.H. Manager II	23	216	4,968	
E.H. Manager I - Technical	17	450	7,650	
E.H. Manager I - Administrative	17	90	1,530	
Toxicologist	16	360	5,760	
E.H. Scientists	15	3731	55,971	
Program Specialist	15	360	5,400	
Attorney	16	90	1,440	
Accountant	11	810	8,910	
Secretary	7	360	2,520	
Subtotal				$96,399
Fringes @ 32% of Personnel				30,848

→ this is 1½ person year full time oversight

Item	Qty	Unit Cost	Cost	Total
Travel				2,650
Coordination Trips	3	650	1,950	
Site Visits	10	70	700	
Equipment				150
Filing Cabinet	0.5	300	150	
Supplies				500
Office Supplies	1	500	500	
Contractual				580,000
Construction				0
Other				1,000
Computer Fees, Telephone, Mailing, etc.				
Total Direct Charges				$711,547
Indirect @ 9.5% of Personnel & Fringes				12,088
Total				$723,635

52 12 12 26 + 52 = 78

B. Procurement

Personnel: Title	$/Hr	Hours	Cost	Total
Bureau Director	$25	29	$725	
E.H. Manager II	23	58	1334	
E.H. Manager I - Technical	17	58	986	
E.H. Manager I - Administrative	17	290	4,930	
Toxicologist	16	29	464	
E.H. Scientists	15	145	2,175	
Program Specialist	15	29	435	
Attorney	16	290	4,640	
Accountant	11	29	319	
Secretary	7	254	1,776	
Subtotal				$17,784
Fringes @ 32% of Personnel				5,691

Item	Qty	Unit Cost	Cost	Total
Travel				0
Equipment				60
Filing Cabinet	0.2	300	60	
Supplies				100
Office Supplies	1	100	100	
Contractual				0
Construction				0
Other				500
Computer Fees, Telephone, Mailing, etc.				
Total Direct Charges				$24,135
Indirect @ 9.5% of Personnel & Fringes				2,230
Total				$26,365
GRAND TOTAL (RI/FS & Procurement)				$750,000